Changes in motor cortical excitability in patients with Sydenham's chorea.

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Abstract:

Abstract BACKGROUND AND PURPOSE: The neurophysiological characteristics of motor cortex have been well characterized in patients with Huntington's disease. We present the first data on cortical excitability in patients with Sydenham's chorea. METHODS: Motor cortex excitability was examined using transcranial magnetic stimulation in 16 patients in the early clinical stages of Sydenham's chorea and in 17 age- and sex-matched control subjects. Investigations included resting and active motor threshold, motor evoked potential, input-output curves, contralateral silent period, and transcallosal inhibition. RESULTS: Resting and active motor threshold were significantly higher and motor evoked potentials were significantly smaller in patients in comparison with controls. The input-output curves were shallower in both hemispheres of patients with chorea compared with controls. No significant differences were seen in silent period or transcallosal inhibition duration. CONCLUSION: Sydenham's chorea is characterized by reduced excitability of corticospinal output similar to that observed in Huntington's disease.

Keywords:

Sydenham's chorea; cortical excitability; cortical silent period; motor threshold; transcranial magnetic stimulation

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